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Dated: 5/12/04 Signature: Joanne Ryan  
(Joanne Ryan)

Docket No.: YU-P07-002  
(PATENT)

DPW

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Reed et al.

Application No.: 10/643747

Confirmation No.: 4089

Filed: August 18, 2003

Art Unit: 2811

For: SUB-NANOSCALE ELECTRONIC  
DEVICES AND PROCESSES

Examiner: Not Yet Assigned

### INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

In accordance with 37 C.F.R. 1.98(d), applicants respectfully submit that no copy of any patent or publication listed on the attached form PTO/SB/08 is necessary because the citations were previously cited by or submitted to the Office in prior application no. 09/988887, filed November 19, 2001 and relied upon in this application for an earlier filing date under 35 U.S.C. 120.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information

as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such. Applicants further request the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents should one or more of the documents be applied against the claims of the present application.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 18-1945, under Order No. YU-P07-002.

Dated: May 12, 2004

Respectfully submitted,

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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
				Application Number	10/643747
				Filing Date	August 18, 2003
				First Named Inventor	Mark A. Reed
				Art Unit	2811
				Examiner Name	Not Yet Assigned
Sheet	1	of	3	Attorney Docket Number	YU-P07-002

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
AA	4,581,621		04-1986	Reed	
AB	4,751,194		06-1988	Cibert et al.	
AC	4,769,683		09-1988	Goronkin et al.	
AD	4,783,427		11-1988	Reed et al.	
AE	4,799,091		01-1989	Reed	
AF	4,803,173		02-1989	Sill et al.	
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AS	5,047,355		09-1991	Huber et al.	
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AW	5,105,232		04-1992	de Alamo et al.	
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BB	5,138,408		08-1992	Ando	
BC	5,138,625		08-1992	Paoli et al.	
BD	5,142,641		08-1992	Fujioka	
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BM	5,214,664		05-1993	Paoli	

Examiner Signature		Date Considered
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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
				Application Number	10/643747
				Filing Date	August 18, 2003
				First Named Inventor	Mark A. Reed
				Art Unit	2811
				Examiner Name	Not Yet Assigned
Sheet	2	of	3	Attorney Docket Number	YU-P07-002

<b>FOREIGN PATENT DOCUMENTS</b>						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See attached Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	BN	Callahan et al. The Tertiary Butyl Group as a Blocking Agent for Hydroxyl, Sulphydryl and Amido Functions in Peptide Synthesis, p. 201-207 (10 Jan. 1963).	
	BO	Farazdel et al. Electric Field Induced Intramolecular Electron Transfer in Spiro $\pi$ -Electron Systems and Their Suitability. J. Am. Chem. Soc. 112, 4206-4214 (1990).	
	BP	Hush et al. Electron and Energy Transfer Through Bridged Systems. 6. Molecular Switches: The Critical Field. J. Am. Chem. Soc. 112, 4192-4197 (1990).	
	BQ	IBM Technical Disclosure Bulletin, vol. 31, No. 9 (Feb. 1989).	
	BR	Kenny et al. Synthesis of Molecular Lines, Rigid Linear Molecules with Nanometer Scale Dimensions. J. Chem. Soc., Chem. Commun. 84-85 (1988).	
	BS	Miller. Molecular Electronics? Adv. Mater. 2, 378-379, 492-497, 601-603 (1990).	
	BT	Nishimura et al. New Method for Removing the S-p-Methoxybenzyl and S-t-Butyl Groups of Cysteine Residues with Mercuric Trifluoroacetate. Chem. Pharm. Bull. 26, 1576-1585 (1978).	
	BU	Sonogashira et al. A Convenient Synthesis of Acetylenes: Catalytic Substitutions of Acetylenic Hydrogen with Bromalkenes, Iodoarenes, and Bromophyridines. Tetrahedron Letters 4467-4470 (1975).	
	BV	Stephens. "A Synthesis of Tolanes and Heterocyclics" in The Substitution of Aryl Iodides with Cuprous Acetylides, p.3313-3315 (Dec. 1963).	
	BW	Stille. Palladium catalyzed coupling of organotin reagents with organic electrophiles. Pure & Appl. Chem. 57, 1771-1780 (1985).	
	BX	Stille. The Palladium-Catalyzed Cross-Coupling Reactions of Organotin Reagents with Organic Electrophiles. Angew. Chem. Int. Ed. Engl. 25, 508-524 (1986).	

Examiner Signature	Date Considered
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Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
Sheet	3	of	3	Attomey Docket Number	YU-P07-002

	BY	Suffert et al. Towards Molecular Electronics: A New Family of Aromatic Polymine Chelates Substituted with Alkyne Groups. Tetrahedron Letters 32, 757-760 (1991).	
	BZ	Tour et al. Approaches to Orthogonally Fused Conducting Polymers for Molecular Electronics. Am. Chem. Soc. 5662-5663 (4 July 1990).	
	CA	Tour et al. Extended Orthogonally Fused Conducting Oligomers for Molecular Electronic Devices. Am. Chem. Soc. 7064-7066 (28 Aug. 1991).	
	CB	Tour et al. Synthesis and UV-Visible Properties of Soluble alpha-Thiophene Oligomers. Monomer to Octamer. Am. Chem. Soc. 1901-1907 (30 March 1992).	
	CC	Yoshimura et al. Quantum Wire and dot formation by chemical vapor deposition and molecular layer deposition of one-dimensional conjugated polymer. Am. Inst. Physics 268-270 (20 Jan. 1992).	
	CD	Zecevic et al. Spectroscopic and Electrochemical Studies of Transition Metal Tetradsulfonated Phthalocyanines. J. Electroanal. Chem. 196, 339-358 (1985).	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Examiner Signature		Date Considered	
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